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# Improving Hearing Screenings with Tele-Otology

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**What is the title of your research project?**
Improving Hearing Screenings with Tele-Otology

**Abstract (250 words or less)**

**Introduction**: The Lions Hearing Center of Michigan (LHC-MI) is an assistance program in Detroit that provides hearing aids to individuals in need. LHC-MI has provided thousands of hearing aids, but such efforts have been costly, requiring patients to make multiple appointments at multiple locations. To streamline this process, the LHC-MI is piloting a new program, titled "Hear Now! Detroit!", that uses telemedicine to reach patients at community sites.

**Purpose**: To evaluate the feasibility of a hearing screening program that uses telemedicine to reduce the number of visits required to acquire hearing aids.

**Methods**: Teams of community volunteers were deployed to several hearing screening sites. 69 patients were pre-screened for hearing loss using a mobile screening audiometer (ES3S, Micro Audiometrics). 23 patients were recommended to proceed with further screening using an interactive iPad Audiometer (Audiometry Pro, SHOEBOX) and digital video otoscope (DE500, Firefly Global). Digital audiograms and video otoscope recordings were sent to a physician who assessed the recordings for quality and used the findings to perform clinical assessments. Participants were surveyed to assess for satisfaction.

**Results**: All video otoscope clips received an "acceptable" or better grade for clinical assessability. All patients who received all three screening tests reported an overall satisfaction rating of 5 out of 5. 16 of the 23 pre-screened participants were found to be good candidates for hearing aids without requiring in-person evaluation.

**Conclusions**: "Hear Now! Detroit!" is a feasible hearing screening model with high patient and provider satisfaction that expedites the process of acquiring hearing aids.

**What are the key words of your research project? (up to 10)**
Otolaryngology; Otology; Audiology; Otoscopy; Hearing Screening; Telemedicine; Tele-audiology; Tele-otology